

WHAT IS CLAIMED IS:

1. A communications terminal for transmitting/receiving data to/from a server over a network, comprising:

a data request section for making a data request for  
5 said server to forward start-up data which includes application data relating to start-up of an application, and authentication type data indicating an authentication mode for authenticating the application data;

a data reception section for receiving said start-up  
10 data coming from said server in response to said data request;

a first authentication section for authenticating said authentication type data received by said data reception section under a predetermined authentication mode;

a second authentication section for authenticating,  
15 corresponding to said first authentication section succeeding in authentication, said application data received by said data reception section under an authentication mode indicated by the authentication type data which has been done with authentication; and

20 an application start-up section for reading, corresponding to said second authentication section succeeding in authentication, said application data which has been done with authentication, and starting up said application.

2. The communications terminal according to claim 1,  
further comprising an application information storage section for  
storing application information which indicates a correspondence  
between the application and the authentication mode used for  
5 authenticating said application data relating to the application,  
wherein

when said start-up data has none of said authentication  
type data, said second authentication section determines the  
authentication mode based on said application information.

3. The communications terminal according to claim 1,  
wherein by designating said application data stored in said server  
using a Web browser, said data request section makes the data  
request for the application data.

4. A communications terminal for  
transmitting/receiving data to/from a server over a network,  
comprising:

a data request section for making a data request for  
5 said server to forward start-up data which at least includes  
application data relating to execution of an application;

a data reception section for receiving said start-up  
data coming from said server in response to said data request;

an application information storage section for storing  
10 application information which indicates a correspondence between

the application and an authentication mode used for authenticating said application data relating to the application;

an authentication section for authenticating said start-up data received by said data reception section under an authentication mode indicated by said application information;

an application start-up section for reading, corresponding to said authentication section succeeding in authentication, the application data which has been done with authentication, and starting up said application; and

under a condition that said start-up data includes both said application data and authentication type data which indicates an authentication mode used for authenticating the application data, an application information update section for updating, corresponding to said authentication section succeeding in authentication, the authentication mode in said application information stored in said application information storage section into the authentication mode indicated by the authentication type data which has been done with authentication.

5. A network system including a server and a communications terminal for data transmission/reception therebetween over a network, wherein

said server comprises:

a start-up data storage section for storing start-up data which includes application data relating to execution of an

application, and authentication type data indicating an authentication mode used for authenticating the application data; and

10           a data transmission section for forwarding the start-up data stored in said start-up data storage section in response to a data request for said start-up data coming from said communications terminal, and

          said communications terminal comprises:

15           a data request section for making the data request for said start-up data;

          a data reception section for receiving the start-up data coming from said server in response to said data request;

20           a first authentication section for authenticating said authentication type data received by said data reception section under a predetermined authentication mode;

          a second authentication section for authenticating, corresponding to said first authentication section succeeding in authentication, said application data received by said data  
25   reception section under the authentication mode indicated by the authentication type data which has been done with authentication; and

          an application start-up section for reading, corresponding to said second authentication section succeeding  
30   in authentication, the application data which has been done with authentication, and starting up said application.

6. A network system including a server and a communications terminal for data transmission/reception therebetween over a network, wherein

said server comprises:

5 a start-up data storage section for storing start-up data which at least includes application data relating to execution of an application; and

a data transmission section for forwarding the start-up data stored in said start-up data storage section in  
10 response to a data request for said start-up data coming from said communications terminal, and

said communications terminal comprises:

a data request section for making the data request for said start-up data;

15 a data reception section for receiving the start-up data coming from said server in response to said data request;

an application information storage section for storing application information which indicates a correspondence between the application and an authentication mode used for  
20 authenticating said application data relating to the application,

an authentication section for authenticating said start-up data received by said data reception section under the authentication mode indicated by said application information;

25 an application start-up section for reading, corresponding to said authentication section succeeding in

authentication, said application data which has been done with authentication, and starting up said application; and

under a condition that said start-up data includes both said application data and authentication type data which indicates an authentication mode used for authenticating the application data, an application information update section for updating, corresponding to said authentication section succeeding in authentication, the authentication mode in said application information stored in said application information storage section into the authentication mode indicated by the authentication type data which has been done with authentication.

7. A computer program embodied on a computer readable medium, said computer program for use with a computer operable in a communications terminal for transmitting/receiving data to/from a server over a network, said program comprising:

a data request step of making a data request for said server to forward start-up data which includes application data relating to start-up of an application, and authentication type data indicating an authentication mode for authenticating the application data;

a data reception step of receiving said start-up data coming from said server in response to said data request;

a first authentication step of authenticating said authentication type data received in said data reception step

under a predetermined authentication mode;

15           a second authentication step of authenticating,  
corresponding to said first authentication step succeeding in  
authentication, said application data received in said data  
reception step under an authentication mode indicated by the  
authentication type data which has been done with authentication;  
20   and

an application start-up step of reading, corresponding  
to said second authentication step succeeding in authentication,  
said application data which has been done with authentication,  
and starting up said application.

8. A computer program embodied on a computer readable  
medium, said computer program for use with a computer operable  
in a communications terminal for transmitting/receiving data  
to/from a server over a network, said program comprising:

5           said communications terminal previously includes  
application information which indicates a correspondence between  
an application and an authentication mode used for authenticating  
application data relating to the application,

said program comprising:

10           a data request step of making a data request for said  
server to forward start-up data which at least includes the  
application data relating to execution of the application;

a data reception step of receiving said start-up data

coming from said server in response to said data request;

15           an authentication step of authenticating said start-up data received in said data reception step under the authentication mode indicated by said application information;

                  an application start-up step for reading, corresponding to said authentication step succeeding in  
20 authentication, the application data which has been done with authentication, and starting up said application; and

                  under a condition that said start-up data includes both said application data and authentication type data which indicates an authentication mode used for authenticating the  
25 application data, an application information update step of updating, corresponding to said authentication step succeeding in authentication, the authentication mode in said application information which has been previously included into the authentication mode indicated by the authentication type data  
30 which has been done with authentication.

9.     A data authentication method used in a communications terminal for transmitting/receiving data to/from a server over a network, comprising:

                  a data request step of making a data request for said  
5 server to forward start-up data which includes application data relating to start-up of an application, and authentication type data indicating an authentication mode for authenticating the



application data;

10 a data reception step of receiving said start-up data coming from said server in response to said data request;

a first authentication step of authenticating said authentication type data received in said data reception step under a predetermined authentication mode;

15 a second authentication step of authenticating, corresponding to said first authentication step succeeding in authentication, said application data received in said data reception step under an authentication mode indicated by the authentication type data which has been done with authentication; and

20 an application start-up step of reading, corresponding to said second authentication step succeeding in authentication, said application data which has been done with authentication, and starting up said application.

10. A data authentication method used in a communications terminal for transmitting/receiving data to/from a server over a network,

5 said communications terminal previously includes application information which indicates a correspondence between an application and an authentication mode used for authenticating application data relating to the application,

said method comprising:

a data request step of making a data request for said  
 10 server to forward start-up data which at least includes the  
 application data relating to execution of the application;

a data reception step of receiving said start-up data  
 coming from said server in response to said data request;

an authentication step of authenticating said  
 15 start-up data received in said data reception step under the  
 authentication mode indicated by said application information;

an application start-up step for reading,  
 corresponding to said authentication step succeeding in  
 authentication, the application data which has been done with  
 20 authentication, and starting up said application; and

under a condition that said start-up data includes  
 both said application data and authentication type data which  
 indicates an authentication mode used for authenticating the  
 application data, an application information update step of  
 25 updating, corresponding to said authentication step succeeding  
 in authentication, the authentication mode in said application  
 information which has been previously included into the  
 authentication mode indicated by the authentication type data  
 which has been done with authentication.